

ABSTRACT

The present invention provides novel compounds comprising cellular phosphoinositides and analogues tagged with stable or radioactive isotopes. The present invention also provides novel 5 methods for the preparation of the said phosphoinositides by syntheses, and novel key intermediates of synthesis; the novel methods of synthesis are applied also for the preparation of the phosphoinositides in non-labelled form. In addition, the present invention discloses a class of novel compounds as isotope labelled key precursors of labelled phosphoinositides. These precursors are derivatives of the target phosphoinositides, labelled with stable or radioactive 10 isotopes, wherein OH and phosphate groups are blocked with temporary protecting groups.